

Eastern Correctional Institution

2008 Drinking Water Quality Report



MARYLAND
ENVIRONMENTAL
SERVICE

Important Information about your Drinking Water:

Special points of interest:

- The water at Eastern Correctional Institution was tested for over 120 different compounds
- The Eastern Correctional Institution drinking water met both State and Federal requirements
- Drinking Water, including bottled water, may reasonably be expected to contain at least small amounts of some compounds. The presence of these compounds does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's (EPA's) Safe Drinking Water Act Hotline (1-800-426-4791)

We're pleased to present to you the Annual Water Quality Report for 2008. This report is designed to inform you about the water quality and services we deliver to you every day.

Our goal is to provide you with a safe and dependable supply of drinking water. Last year more than 800 tests for over 120 compounds were conducted on the water at Eastern Correctional Institution. Maryland Environmental Service, an Agency of the State of Maryland, operates the water treatment facility and prepared this report. We want you to understand the efforts made to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water.

We're pleased to report that your drinking water met both Federal and State requirements. This report shows the water quality and explains what it means.

If you have any questions about this report or have questions concerning your water utility, please contact Mr. Jay Janney at 410-729-8350 or jjann@menv.com

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain compounds in water provided by public water systems. We treat our water according to EPA's regulations. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

The water for Eastern Correctional Institution comes from two primary wells in the Patapsco formation and two backup wells in the Manokin aquifer. After the water is pumped out of the wells, we reduce/remove some contaminants through reverse osmosis treatment and then add disinfectant to protect against microbial contaminants.

*We want everyone to be informed
about their water.*

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

The table below lists all the regulated drinking water contaminants that we detected during the 2008 calendar year. The presence of these compounds in the water does not necessarily indicate that the water poses a health risk.

Unless otherwise noted, the data presented in the table is from testing done January 1 – December 31, 2008. The State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year.

Eastern Correctional Institute Treated Water Quality Report 2008				
Maximum Contaminant = Level (MCL) =	The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology.			
Maximum Contaminant = Level Goal (MCLG) =	The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.			
Action Level =	The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.			
ng/l = nanogram per liter				
ppm = parts per million or milligrams per liter				
ppb = parts per billion or micrograms per liter				
pCi/l = picocuries per liter (a measure of radiation)				
mrem/yr = millirem per year (a measure of radiation absorbed by the body)				
Contaminant	Highest Level Allowed (EPA's MCL)	Highest Level Detected	Ideal Goal (EPA's MCLG)	Typical Sources of Contaminant
Regulated at the Treatment Plant - Ravell Neck Road				
Wells 4 and 5 - Perry Road - Plant I.D. 01				
Nitrate	10 ppm	0.1 ppm	10 ppm	Erosion of natural deposits
Fluoride	4 ppm	3.51 ppm	4 ppm	Water additive which promotes strong teeth
Gross Beta	4 mrem/yr	0.64 mrem/yr	0 mrem/yr	Decay of natural and man-made deposits
Gross Alpha	15 pCi/l	4 pCi/l	0 pCi/l	Erosion of natural deposits
Radium-226	5 pCi/l	0.6 pCi/l	0 pCi/l	Erosion of natural deposits
Chromium - (2006 Testing)	100 ppb	20.0 ppb	100 ppb	Erosion of natural deposits
Di (2-ethylhexyl) phthalate (2006 Testing)	6 ppb	1.2 ppb	0 ppb	PVC Plastics
Well 1 - Perry Road - Plant I.D. 02				
Fluoride (2007 Testing)	4 ppm	0.39 ppm	4 ppm	Water additive which promotes strong teeth
Well 2 - Detention Center - Plant I.D. 03				
Barium	2 ppm	0.011 ppm	2 ppm	Erosion of natural deposits
Fluoride (2007 Testing)	4 ppm	0.38 ppm	4 ppm	Water additive which promotes strong teeth
Nitrite	10 ppm	0.16 ppm	10 ppm	Runoff from fertilizer use
Gross Beta (2007 Testing)	4 mrem/yr	0.88 mrem/yr	0 mrem/yr	Decay of natural and man-made deposits
Radium-226 (2007 Testing)	5 pCi/l	0.3 pCi/l	0 pCi/l	Erosion of natural deposits
Gross Alpha (2007 Testing)	15 pCi/l	25 pCi/l	0 pCi/l	Erosion of natural deposits
Regulated at the Tap				
*Fluoride	4 ppm	Range 2.09 ppm - 2.11 ppm	4 ppm	Water additive which promotes strong teeth
Copper (2007 Testing)	1.3 ppm (action level)	90th percentile= 0.656 ppm	1.3 ppm	Corrosion of household plumbing fixtures and systems

*Several samples that are usually collected from the Point of Entry were taken from the distribution. Fluoride is the only sample detected

Federal regulations require that fluoride, which occurs naturally in your water supply, not exceed a concentration of 4.0 mg/l in drinking water. This is an enforceable standard called a Maximum Contaminant Level (MCL), and it has been established to protect the public health. Exposure to drinking water levels above 4.0 mg/l for many years may result in some cases of crippling skeletal fluorosis, which is a serious bone disorder.

Federal law requires that we notify you when monitoring indicates that the fluoride in your drinking water exceeds 2.0 mg/l. This is intended to alert families about dental problems that might affect children under nine years of age. The fluoride concentration of your water exceeds this federal guideline.

Fluoride in children's drinking water at levels of approximately 1 mg/l reduces the number of dental cavities. However, some children exposed to levels of fluoride greater than about 2.0 mg/l may develop dental fluorosis. Dental fluorosis, in its moderate and severe forms, is a brown staining and/or pitting of the permanent teeth. Because dental fluorosis occurs only when developing teeth (before they erupt from the gums) are exposed to elevated fluoride levels, households without children are not expected to be affected by this level of fluoride. Families with children under the age of nine are encouraged to seek other sources of drinking water for their children to avoid the possibility of staining and pitting.

RADON: We constantly monitor the water supply for various constituents. We have detected radon in the water supply on a sample collected in June 25th, 2007. At this time, there is no Federal Regulation for radon levels in drinking water. Compared to radon entering the home through soil, radon entering the home through tap water will in most cases be a small source of radon in indoor air. Exposure to air transmitted radon over a long period of time may cause adverse health effects. The radon result of the June 2007 sample ranges from 11 to 25 pCi/l (pCi/l = picocuries per liter, a measure of radioactivity). For additional information call the EPA radon hotline at 1-800-SOS-RADON

Important Information about Gross Alpha:

Gross Alpha is naturally occurring in some drinking water sources. Certain materials are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer. As of September 2007, wells 1 and 2 have not been used and are maintained as backup wells only.